

03050101-190 (Allison Creek)

General Description

Watershed 03050101-190 (formerly 03050101-200) is located in York County and consists primarily of **Allison Creek** and its tributaries. The watershed occupies 42,482 acres of the Piedmont region of South Carolina. The predominant soil types consist of an association of the Cecil-Hiwassee series. The erodibility of the soil (K) averages 0.28; the slope of the terrain averages 10%, with a range of 2-25%. Land use/land cover in the watershed includes: 59.3% forested land, 19.7% agricultural land, 13.1% scrub/shrub land, 4.3% water, 2.6% urban land, and 1.0% barren land.

Allison Creek originates near the Town of Clover and is joined by Morris Branch, Calabash Branch (Walker Branch), Grist Branch, Johnson Branch (Rock Branch), and Big Branch before forming an arm of Lake Wylie near the City of York. Little Allison Creek is also impounded and flows into the Allison Creek arm of the lake. There are a total of 46.4 stream miles and 1,699.4 acres of lake waters in this watershed, all classified FW.

Water Quality

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
CW-171	S	FW	ALLISON CREEK AT US 321 3.1 MI S OF CLOVER
CW-134	S	FW	CALABASH BRANCH AT S-46-414 2.5 MI SE OF CLOVER
CW-694	BIO	FW	ALLISON CREEK AT S-46-114
CW-200	S	FW	LAKE WYLIE, ALLISON CREEK ARM AT SC 274 9 MI NE OF YORK
CW-201	P	FW	LAKE WYLIE, NORTH LAKEWOODS SD AT EBENEZER ACCESS

Allison Creek - There are two monitoring sites along Allison Creek. At the upstream site (**CW-171**), aquatic life uses are fully supported. Significant decreasing trends in five-day biochemical oxygen demand, total phosphorus concentrations, and turbidity suggest improving conditions for these parameters. Recreational uses are not supported due to fecal coliform bacteria excursions; however a significant decreasing trend in fecal coliform bacteria concentration suggests improving conditions for this parameter. Aquatic life uses are fully supported at the downstream site (**CW-694**) based on macroinvertebrate community data.

Calabash Branch (CW-134) - Aquatic life uses are fully supported. A significant increasing trend in dissolved oxygen concentration and significant decreasing trends in five-day biochemical oxygen demand and turbidity suggest improving conditions for these parameters. Recreational uses are not supported due to fecal coliform bacteria excursions.

Allison Creek Arm of Lake Wylie - There are two stations along this section of the lake and recreational uses are fully supported at both sites. Aquatic life uses are fully supported at **CW-200**. There is a significant decreasing trend in pH. Significant decreasing trends in five-day biochemical oxygen demand and total phosphorus concentrations suggest improving conditions for these parameters. Aquatic life uses are also fully supported at **CW-201**, but there is a significant decreasing trend in dissolved oxygen

concentration. Significant decreasing trends in five-day biochemical oxygen demand and total nitrogen concentrations suggest improving conditions for these parameters. In sediment, high concentrations of chromium were measured in the 1997 and 1998 samples. Also in sediment, very high concentrations of copper were measured in the 1997 and 1998 samples, and high concentrations were measured in the 1994 and 1995 samples. High concentrations of lead were measured in sediment in 1997 and 1998. A very high concentration of nickel was measured in sediment in 1997, and a high concentration in 1994. High concentrations of zinc were measured in the 1994, 1997, and 1998 sediment samples. The pesticide malathion was detected in sediment in 1994.

NPDES Program

Active NPDES Facilities

RECEIVING STREAM FACILITY NAME PERMITTED FLOW @ PIPE (MGD) COMMENT	NPDES# TYPE LIMITATION
ALLISON CREEK TRIBUTARY NORTH SAFETY PRODUCTS PIPE #: 001 FLOW: 0.012 WQL FOR BOD ₅ , NH ₃ -N, TRC, DO	SC0002801 MINOR INDUSTRIAL WATER QUALITY
ALLISON CREEK ARM OF LAKE WYLIE DUKE POWER/CATAWBA NUCLEAR STATION PIPE #: 001-005 FLOW: M/R	SC0004278 MAJOR INDUSTRIAL EFFLUENT

Water Supply

WATER USER (TYPE) STREAM	REGULATED CAPACITY (MGD) PUMPING CAPACITY (MGD)
CATAWBA NUCLEAR STATION (I) LAKE WYLIE	---- 0.5

Growth Potential

The majority of this watershed is rural in nature; however, portions of the Town of Clover and areas fronting and near Lake Wylie have existing concentrated development. There are also a few areas of intensive farming. Water and sewer services are available in the immediate vicinity of Clover, and water has been extended along S.C. Hwy. 274 near Lake Wylie. Future growth trends should show continued residential development on Lake Wylie, continued expansion around Clover, and limited low density residential growth scattered throughout the rural areas. The Town of Clover eliminated its discharge and tied in with the City of Gastonia, N.C.